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An Inaugural Dissertation

On Dysentery

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Of the various definitions of the dysentery given by nosological writers, none comprehends so completely the principal symptoms, or distinguishes it so accurately from other affections, as that delivered by the illustrious Cullen.

According to him, it is a contagious fever in which the patient has frequent stools, accompanied with much griping, and followed by a tenesmus. The fæces for the most part being retained.

The dysentery makes its appearance generally in the latter end of summer, or beginning of autumn, after long continued heats.

The first symptoms, are various affections of the alimentary canal. Sometimes this disease comes on with cold, shiverings, and other symptoms of pyrexia, but most generally symptoms of topical affections appear first. At other times, a purging is the first symptom perceived, but it does not excite much at-

tention, and the disease steals on insensibly.
Nausea and vomiting, attended with a bitter taste in the mouth, flatulence, griping, and frequent but ineffectual strainings succeed: at the same time, the patient is affected with lassitude, or weariness on the slightest exertion, and also with pain in the back, and loins: sometimes the attack is more violent and sudden, the gripings accompany the purging from the beginning of the complaint, and are followed by great heat, thirst, delirium, and pain in the head.
In proportion as the disease advances, the stools become more frequent, the patient suffers more with violent vomiting and griping: the tenesmus is more painful, and the relief obtained by straining hourly decreases. If the symptoms be not alleviated, the inclination to stool becomes greater every hour, sweating is produced by the violence of the straining, and the patient sometimes faints from excessive pain. The matters now discharged resemble the washings of fresh meat

and have a very fœtid smell.

The irritability of the stomach is now so great, that food, whether solid or liquid, when taken into the stomach, is followed by an immediate inclination to stool, accompanied with a sensation as if what had just been swallowed was running through the bowels.

The languor and prostration of strength at length become extreme, a hiccough comes on, the countenance sinks, the eyes assume a glossy appearance, while the patient, owing to the imperfect vision, is distressed with imaginary objects flying before them.

The excruciating pain, which before tormented the patient, ceases for some hours, and in some cases for days before ~~their~~ death; and though at this time they are most commonly delirious, yet they are frequently sensible to the last.

The faces are expelled involuntarily and, with intolerable fœtor, an absolute inability of deglutition takes place;

the pulse is exceedingly weak, the teeth and tongue are covered with a black crust, which collects immediately again after being removed; death follows, and relieves the miserable patient from his sufferings.

Dissections of the bodies of those who have died of the dysentery, shew that there is no part of the alimentary canal which has not at one time or other been affected: but the whole of these morbid appearances are entirely to be considered as the effect of this disease.

There are but few diseases, with which dysentery can be confounded. "From diarrhœa it may be readily distinguished by the absence of fever and tenesmus."

The remote causes of dysentery are very similar to those of the remittent and intermittent fevers. The dysentery appears to be so intimately connected with these fevers, that it has been disputed, whether it is not the same disease differently modified, and whether it is even an original affection.

My own experience does not enable me to determine.

whether it is an original affection or not: and therefore I shall only give some of the most important arguments advanced on both sides of the question. Those in favour of both diseases being the same, argue thus.

1. Both diseases appear in the same place, and at the same season of the year, in persons exposed to the same causes, &c.

2. Those countries most subject to one disease are also most liable to the other.

3. Sir John Pringle has observed that those who were seized with the dysentery usually escaped the fever, and if any person had both it was alternately, so that when the flux began, the fever ceased, and when the fever was stopped, the latter returned; hence it appeared that though the two distempers were of a different form yet they proceeded from a like cause.

4. It is also alleged as a proof that the causes of

these diseases are precisely the same; and that they will excite either a dysentery or intermittent fever, just as the situation of the system, or other circumstances at the same time of their application, favour the production of the one or the other; that each of them prevails at the same time in different parts of the same neighbourhood; this happened in Cecil County Maryland during the last summer, whilst the intermittent fever prevailed on the low grounds, the dysentery raged on the high.

These are the principal arguments, advanced in favour of the supposition, that the dysentery and the intermittent fevers are different modifications of the same disease.

The arguments on the opposite side of the question, tend strongly to prove the distinct and seperate nature of the two diseases

The dysentery and intermittent fevers are not always prevalent in the same place, and during the

the same season; although this is sometimes the case, as observed in one of the arguments advanced on the other side of the question.

During the last summer, a dysentery prevailed with great mortality in the upper part of this county, where the intermittent fever is rarely known to occur. Dysentery often occurs with little or no fever. These facts go to prove, that dysentery although frequently a symptomatic affection, is not less frequently an original disease, produced by some specific cause.

The remote causes may be divided into predisposing and exciting. The predisposing are either external, or internal. The external are heat, moisture, and want of cleanliness. The internal may be debility, from excessive evacuations &c depressing affections of the mind, as fear, anger &c, a great tendency in the fluids to putrefaction, or that condition of body which occurs in camps & fleets, when the sol-

-diers, and sailors are exposed to the heat of the sun.
Heat and moisture act principally about the end of summer, when cold and moist nights succeed warm days.
In this state of the weather the whole system is much debilitated, the solids are relaxed, a tendency to putre-faction, is perhaps produced, and perspiration is often checked: On this account, therefore I believe heat and moisture may be considered as remote causes of dysentery.
Want of cleanliness is a powerful cause of this, as well as of other diseases; it is always unwholesome, more especially in the summer, when heat and moisture are combined, it has long been known to produce dysentery.
The Exciting causes, are contagion, miasmata and cold.
Contagion is well known to be a powerful agent in the production of dysentery.

Degner in history of the dysentery which raged at Nimeguen in the autumn of 1736, informs us that that contagion was communicated by one person, an officer of the house.

Contagion is conveyed by every thing about the sick, and more particularly by the excrements; which as in all other contagious diseases, being the excretions peculiar to the disease, are infectious. - as in opthalmia the discharges and effluvia of the diseased eyes will infect people who looks at them. But in dysentery, when the mass of blood is contaminated, and fevers are united with it, then not only the excrements of the sick communicate the disease, but their breath also, and the exhalations from their bodies.

Miasmata arising from marshes are a frequent and common cause of dysentery as well as of intermittent fever.

Here a question arises viz.

What is the nature of these miasmata and contagions, or how do they affect the human system? Do they produce their effect by operating on the nervous system, weakening the influence of the "Sensorium Commune", and consequently the whole body? Or are they taken in with the air in respiration, and mixing with the saliva, are conveyed into the stomach and intestines, where by operating on the extremely sensible nerves of those organs, which are intimately connected with the whole body, they produce the disease in question?

The latter opinion appears to me the most rational and best supported by facts.

Almost every disease, arising from marsh miasmata or contagion, begins with some affection of the alimentary canal, as nausea, and vomiting.

But what makes it more probable, that they are mixed with the saliva, and carried into the stomach, is the success attending the use of those means whereby

the contagion is prevented from entering the system.
Some writers deem swallowing the spittle whilst in infected places, a certain means of acquiring the taint; for which reason neither the nurses, nor any one else, should eat whilst in the infected rooms.
The success attending the early administration of emetics and cathartics, in contagious diseases, is a satisfactory proof of the doctrine here endeavoured to be established; that the contagion is taken in with the saliva, and acts on the stomach and bowels, and that in consequence of the very great connexion which these viscera have with the rest of the system, the whole body is afterwards brought into a diseased action.
Cold is undoubtedly a frequent cause of this disease, and when applied to the body under certain circumstances constantly produces it.
Cullen tells us that dysentery often manifestly arises from the application of cold, but that the disease is always contagious, and by the propagation of such

contagion independent of cold, or other exciting causes, it becomes epidemic in camps and other places. It is therefore to be doubted, if the application of cold does ever produce the disease, unless when the specific contagion has been previously received into the body: and, upon the whole, it is probable, that a specific contagion is to be considered as always the remote cause of this disease."

In treating of the remote causes, I shewed, that the stomach and bowels were the first parts affected; the cause of this affection I also attempted to prove was contagion, taken in respiration, which being mixed with the saliva, and carried into those organs, by irritating and weakening them produced the disease in question.

Cullen's idea of the proximate cause of this disease, is very different from that of other writers. He conceives the proximate cause, or at least the chief part of it, to be the preternatural constriction of the colon which

occasions at the same time, the spasmodic efforts which are felt in gripings, and being propagated downwards to the rectum, occasion the frequent stools and tenesmus."
Respecting the prognosis as little need be said as on the diagnosis.

A great degree of tenesmus, severe gripings, frequent inclination to go to stool and but little voided, much depression of strength, tense abdomen, violent hyperpiea, cold sweats, apthæ, hiccup, and weak, irregular pulse are to be considered very unfavourable symptoms.
On the contrary, a gentle diaphoresis, moderate hyperpiea, the evacuations less frequent and more natural with a gradual diminution of tormina and tenesmus, may be regarded favourable symptoms.

Cure.—

No disease to which mankind are subject, is more difficult of cure than dysentery, when neglected, or to which a greater number fall victims, when

it is suffered to run so some time before it is attended to.

Two different stages evidently exist in the course of this disease; wherefore to treat it properly, due attention should be paid to that stage present, when called in to see the patient.

In the first stage, more or less of an inflammatory diathesis prevails: to reduce this, venesection is the most certain and effectual method.

Among the many cases of this distemper, which occurred in this county within the last two years, I have seen no one case in which the symptoms warranted the use of the lancet. I have no doubt that it may be necessary to resort to venesection in many parts of the country, when the fever may be violent, and the inflammation of the intestines so great as to threaten a termination in gangrene, if this operation were omitted.

It has been a matter of doubt among Physicians

whether to consider the inflammation attendant on dysentery as the consequence or cause of the disease. I am decidedly in favour of the latter opinion, and would not recommend the use ~~of the use~~ of the lancet in one case out of hundred.

In the treatment of dysentery emetics are often very great advantage. Which there is redundant or vitiated bile present in the primæ viæ, as is the case frequently in the dysenteries of hot climates and marshy districts, vomits would seem to be indispensible. Sir John Pringle and Cleghorn speaks very favourably of emetics in the treatment of this disease. The latter was in the habit of giving ipecacuanha and vitreous antimonial wine as evacuants. Ipecacuanha for a long time was thought to be possessed of a specific power in dysentery, but later experience has proved that the effects of this medicine are best obtained, when it is given in small doses, so as to operate by stool; antimonial preparations have deservedly gained great credit in this disease.

Relaxation

A novel method of administering emetics in dysentery has been recommended by a Mr Clarke; which he assures us he found highly successful. This is in the form of a clyster; and that which he has found to answer best, has been about three drachms of Ipecacuanha-root, bruised and boiled in a quart of water to a pint, which he repeats twice or thrice in twenty four hours.

When a mere emetic is wanted, it is not of much consequence which is used, the Tartar Emetic or Ipecacuanha.

The removal of the constriction of the colon, and the vacuation of the contents of the intestines, which are of themselves a source of great and painful irritation, is one of the most important considerations in the cure of dysentery.

For this purpose cathartics are of the utmost importance, and such as produce a speedy and full vacuation, and are the least harsh in their operation should be preferred.

The neutral salts are particularly proper, especially the Glauber or Epsom, in the first stage of this disease; they will frequently lie on the stomach when every thing else will be thrown up.

The patient instead of being weakened by the frequent repetition of purging as might naturally be supposed, appears rather to be invigorated after each stool, and experiences considerable relief from the griping &c, by the discharge of the noxious contents of bowels, which by being retained would increase the disease.

Rhubarb has been much extolled in the treatment of dysentery and there is no doubt of its utility in the advanced stages of this complaint; but in the commencement, before more decisive antiphlogistic measures have been resorted to, from its stimulating and astringent qualities, it is unquestionably an improper remedy.

No Cathartic is more commonly employed in this

complaint than castor oil; and when the stomach can bear it, it is a very important remedy." "Rheum Rhaini," says Dr Wampfield "is perhaps better calculated, to afford relief in dysentery than any other aperient or cathartic; for its action is not only mild and generally effectual, but I have observed, that some of its passes undecomposed, in its only form, through the intestines, and appears on the surface of the excrement and hence may serve as a sort of sheathe or defence to the diseased intestines, from the stimulus of faeces and morbid secretions."

It is less apt to be rejected by the stomach when given in union with laudanum.

The learned professor of the practice, recommends the administration of several ounces of castor oil daily. Calomel he also tells us is a favourite cathartic with him in the commencement of the disease.

With the view of determining the circulation to the surface, diaphoretic medicines, such as James's or

Dover's powder may be used. The Antimonial preparations have been much spoken of, but in the opinion of Doct. Moseley and many other writers, are inferior to Ipecacuanha.

Injections of mucilaginous and demulcent liquors, as broths &c. are of great use in this disease; for by sheathing the intestines and supplying the place of their natural mucus they afford great relief, and the colon being filled with warm liquor, the relaxation of its constriction is thereby assisted, and the discharge of the indurated faces promoted. The warm bath, the flannel roller, and in many cases blisters, are of singular service in this respect. In the commencement of the disease, it would be improper to employ either opiates or astringents; but in the second or advanced stage, when the strength of the patient is much exhausted by the frequent returns of the complaint, proceeding from a relaxed state of the bowels, a use of these reme-

dies will prove very beneficial, taking care to obviate costiveness, by occasionally giving some mild aperient.

If in this stage, the patients rest be much disturbed through the night from the frequency of the motions, an opiate may be taken on going to bed.

For the cure of the tenesmus which sometimes remains, from the tender state of the rectum, anodyne clysters, or one or two grains of opium made in the form of a pill, and lodged a short distance within the rectum, are remedies which may be resorted to with much benefit. An injection of melted butter deprived of its rancidity should be thrown up every hour or two.

Persons recovering from dysentery should be very particular in their diet.

Every sort of food which readily tends to putrefaction ought to be avoided, as also all fermented,

and spirituous liquors.

The stomach being incapable of digesting solid food, mucilaginous articles, as soups should constitute the patients diet throughout the disease. His drink should be Barley or Gum arind water. In the early stage of this disease ripe fruit, might be proper; but in the latter stage they should be avoided.

A person in recovering from dysentery should be warmly clothed; a flannel shirt the proper next to the skin.

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